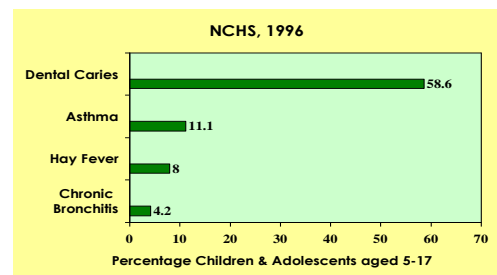


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 Maryland Department of Health and Mental Hygiene

Cecil County Health Department  
 January 20, 2011

**A Dental Home is Where the Heart Is: Building  
 a New Home in Maryland**

## Importance of Oral Health



## Importance of Oral Health

They are "just baby teeth",  
 but this damage can be  
 permanent.....

The infections from these  
 decayed teeth can:

- Cause permanent damage to their adult successors
- Inhibit nutrition and physical development
- Keep a child up at night
- Affect the child's ability to concentrate and learn in school



## Importance of Oral Health

Pictures Tell a Thousand Stories  
 But if this doesn't grab you...

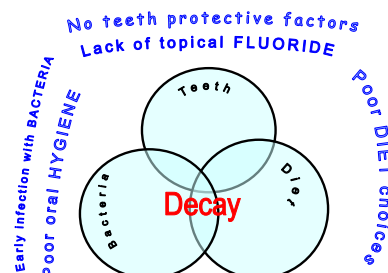


## Death of Deamonte Driver

- 12-year Maryland boy
- Never complained/no one was looking
- Untreated dental infection that eventually entered his brain
- 2 brain surgeries, experienced seizures, had 1 tooth extracted, and spent 6 weeks in a hospital
- Emergency treatment cost = \$250,000
  - Medicaid cost of simple extraction - <\$100
  - Medicaid cost of preventive services - <\$60
  - \$80/year
- Died unexpectedly-February 25, 2007



## Origin of Dental Cavities



## Dental Caries in a 3-Year Old



## Cecil County

2005-2006 Oral Health Survey Schoolchildren  
(Region Specific - Eastern Shore)

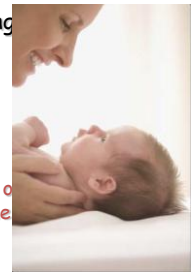
Percentage of children dental caries (K)	41.5%
Percentage of children dental caries (3 <sup>rd</sup> grade)	37.3%
Percentage of children dental sealants (K)	2.1%
Percentage of children dental sealants (3 <sup>rd</sup> grade)	25.4%

## Essential Rudiments for Good Oral Health

1. Routine Exams by a Dentist - Early Intervention
2. Risk Assessment
3. Anticipatory Guidance for Caregivers
  - Health Education
4. Prevention - fluoride use
5. Referral - Dental Home

## Significance of Dental Care During Pregnancy

- Accessing dental care during pregnancy is important to:
  - Prevent periodontal disease
  - Manage tooth decay
  - Decrease risk of poor birth outcomes
  - Reduce risk of transmission of maternal oral bacteria to the infant



## Infectious Disease Vectors



During simple everyday activities - transfer of decay producing bacteria from mother during feeding



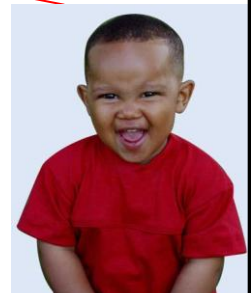
Sharing food, utensils or even toothbrushes between siblings or friends (ugh!)

## Early Intervention

~~First Dental Visit at 3 years of age?~~

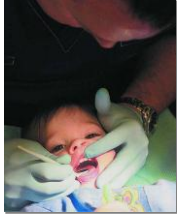
See the child before tooth decay starts (by eruption of **first** tooth or **first birthday**)

Early Intervention, Risk Assessment and Anticipatory Guidance (for Prevention and Education) are the Preferred Solutions



## Conduct Oral Screening

### Risk Assessment



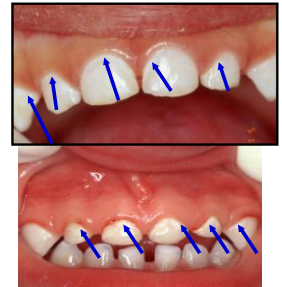
- Look for:
  - Eruption of primary teeth
  - Plaque
  - White spots (pre-cavities) along the gum line of teeth
  - Tooth decay
  - Enamel defects
  - Crowding
- Show the parent any problems and provide education on oral hygiene and diet

## Risk Assessment

### Presence of Pre-Cavity Lesions

### White spot lesions

- Present prior to teeth developing cavities
- Generally appear on smooth surfaces of teeth



## Risk Assessment

### Presence of Visible Plaque

- An indicator of cavity risk in young children
- Sticky clear substance on teeth that contains bacteria
  - Sugary diet
  - Poor oral hygiene such as lack of toothbrushing
- Screening for plaque is simple and low cost



## Early Childhood Tooth Decay



- Formerly known as "baby bottle tooth decay"
- Severe form of decay in the primary (baby) teeth
- Prolonged and frequent exposure to sugary liquids such as formula, juice, and sodas
- Bacterial (*Mutans Streptococci*) colonization

## Prevention: Oral Hygiene

- Reduce the amount of bacteria in your mouth
  - Brushing with toothpaste with fluoride
  - Flossing
  - Antibacterial mouth rinses
  - Xylitol gum or mints
- Keep routine dental visits

## Prevention

### Fluoride Use

- Lifelong effectiveness in controlling or reducing dental cavities
- When present in plaque and saliva:
  - Stops loss of tooth minerals from sound tooth (enamel) structure
  - Puts minerals back into enamel that has lost minerals
  - Destroys cavity producing bacteria
- Systemic - ingested (e.g., fluoride in community water systems and fluoride in vitamins - drops/tablets)
- Topical - on tooth surface (e.g., toothpaste, rinse, gel, varnish) effects

## Prevention

### Fluoride Varnish

#### Advantages

- Easy to apply
- Teeth do not need professional prophylaxis
- Children can eat and drink 30 minutes following applications
- Dries quickly so ingestion of fluoride is low
- Prevents caries on both smooth surface and pit and fissure sites



## Prevention

### Use of Fluoride Prescribed Supplements



## Community Water Fluoridation

- Hailed by the American Public Health Association as one of the greatest public health achievements in the 20th Century
- Protects over 360 million people in 60 countries worldwide
- Benefits 184 million people in the US or 69% of those on public water systems (10,000 communities)
- 80 million people in US still do not have access to fluoridated water
- 93% of Marylanders on public water supplies
- Northeast (2009) only community in Cecil County

## Diet and Tooth Decay

- Sucrose - THE sugar most likely to cause cavities
  - Most effective if consumed BETWEEN meals
  - Most effective if ingested more FREQUENTLY
  - Most effective if RETAINED in the mouth longer

## Diet and Tooth Decay

### Bottle-to-Bed

- Discourage bottle-to-bed practice
- Milk
  - Sugar in milk (lactose) may not cause cavities
    - Lactose not utilized by bacteria like sucrose
    - Antibacterial factors
    - Found to place minerals back into enamel
    - Still do NOT place milk for bottle-to-bed
- Breastfeeding encouraged
- Problem is sweetened juices/sodas

## Prevention

### Diet

- Restrict cavity producing foods to mealtimes
- Most food consumption should occur at mealtime
  - Reduce between meal snacking
- Promote nutritious, non-cavity producing foods
- Discourage slowly eaten, sugar-containing foods
- Follow established dietary guidelines



## Dental Action Committee Recommendations and State Progress

- Statewide single Medicaid dental vendor
- Over three years, increase dental rates to ADA 50<sup>th</sup> percentile
- Begin to restore dental public health safety net
- Create public health dental hygienist
- Institute school-based oral health screenings
- Train general dentists in pediatric dental care
  - Fluoride varnish program for Medicaid medical providers
- Oral Health Literacy Campaign

## Cecil County

### Medicaid (Region Specific - Eastern Shore)

Active Dentists Eastern Shore	218
Dentist enrolled in Medicaid as of June 2010	53
Dentists who billed Medicaid \$10,000+ in 2009	28

## Cecil County

### Fluoride Varnish - Provider Participation

Number of Medical Practitioners Eligible to Participate in FV	4
Medical Practitioner Participation Rate (of those eligible)	0%

### Oral Health Literacy Campaign - Fall 2011

- Statewide social marketing and media campaign whose goals are to:
  - Educate low income families about the importance of oral health and its effects on overall health and well-being
  - Encourage the public to request and keep dental appointments and be better prepared to navigate the oral health delivery system
  - Empower the public to enhance oral health behaviors such as proper oral hygiene practices and nutritional choices at home

### Dentists Participating in Medicaid

	Dentists Listed in HealthChoice (Managed Care) Provider Directories	DentaQuest (ASO) Providers	
	July 2008	August 2009	July 2010
Baltimore Metro	401	242	344
Montgomery/ PG Counties	278	208	296
S. Maryland	28	29	39
W. Maryland	43	65	97
E. Shore	40	43	53
MD Bordering States	n/a	62	110
Unduplicated Total	743	649	939 (now 1036)
Fluoride Varnish Providers	n/a	225	319

### Percentage of Children Enrolled in HealthChoice who had at Least One Dental Encounter by Age Group, Enrolled for Any Period

Age Group	CY 2005	CY 2006	CY 2007	CY 2008	CY 2009
0-3	7.8%	7.9%	10.0%	12.3%	18.6%
4-5	37.7%	37.2%	42.4%	47.7%	56.0%
6-9	42.5%	42.3%	47.6%	53.1%	60.7%
10-14	39.4%	39.5%	44.2%	48.8%	56.4%
15-18	32.4%	32.3%	35.8%	39.5%	46.0%
19-20	19.0%	18.4%	20.1%	23.4%	30.1%
Total	29.6%	29.3%	32.9%	36.7%	43.8%

My Backseat Drivers  
(and Attentive Listeners)



Thanks and Questions?